

# Immunization Questions and Answers

## HOW MANY SHOTS DOES MY CHILD NEED, AND WHEN?

Some children should get their first shot (hepatitis B) before leaving the hospital after birth. Others begin at 2 months of age. You will have to return for more shots several more times before the child starts school. Your doctor or nurse will tell you when to come back. There is a schedule in the appendix of this booklet showing the recommended ages for each shot.

## WHY DO CHILDREN NEED SO MANY SHOTS?

There are 12 potentially serious diseases that vaccines protect against: Measles, Mumps, Rubella (German Measles), Diphtheria, Tetanus (lockjaw), Pertussis (Whooping Cough), Polio, Haemophilus Influenzae type b (Hib Disease), Hepatitis B, Varicella (Chickenpox), Hepatitis A, and Pneumococcal disease. At least one shot is needed for each of these diseases, and for some of them several doses are required for the best protection.

This adds up to a lot of shots, and several are usually given at the same time. Some parents worry that it is not safe to give several shots at once, or that they may not work as well, or that they will overload the child's immune system. But studies have shown these fears to be unfounded. Vaccinations are just as safe and just as effective when given together as they are when given separately. The immune system is exposed to many foreign substances every day, and will not be overburdened by vaccines. Several "combination vaccines" already exist (such as MMR and DTaP) in which multiple vaccines are given in a single shot, and this reduces the number of shots needed. More combinations are being developed, so in the future, even fewer shots will be needed for the same number of vaccines.

## WHY ARE VACCINES GIVEN AT SUCH AN EARLY AGE?

Vaccines are given at an early age because the diseases they prevent can strike at an early age. Some diseases are far more serious or common among infants or young children.

For example, up to 60% of severe disease caused by Haemophilus influenzae type B occurs in children under 12 months of age. Infants less than 6 months of age are at highest risk for serious complications of pertussis - 72% of children under 6 months who get pertussis must be hospitalized, and 84% of all deaths from pertussis are among children under 6 months. The ages at which vaccines are recommended are not arbitrary. They are chosen to give children the earliest and best protection against disease.

## HOW SERIOUS ARE THESE DISEASES?

Any of them can kill a child. It's easy to forget how serious they are because - thanks largely to vaccines - we don't see them nearly as much as we used to. Measles used to kill thousands of people in the United States every year. In the 1940's and 1950's tens of thousands of children were crippled or killed by polio. As recently as the mid-1980's, 20,000 children a year suffered from meningitis and other serious complications as a result of Hib disease.

These diseases aren't as common as they used to be, but they haven't changed. They can still lead to pneumonia, choking, brain damage, heart problems, liver cancer, and blindness in children who are not immune. They still kill children every year, even in the United States.



## **WHAT WILL HAPPEN IF MY CHILD DOESN'T GET THESE SHOTS?**

Basically, one of two things could happen.

- 1) If your child goes through life without ever being exposed to any of these diseases, nothing would happen.
- 2) If your child were exposed to any of these diseases, there is a good chance he would get the disease. What happens then depends on the child and the disease. The child could get mildly ill and have to stay inside for a few days. He could get very sick and have to go to the hospital. At the very worst, he could die. In addition, he could also spread the disease to other children and adults who are not immune. If there were enough unprotected people in your community, the result could be an epidemic, with many people getting sick and some dying.

## **WHAT ARE MY CHILD'S CHANCES OF BEING EXPOSED TO THESE DISEASES?**

It's hard to say. Some of these diseases are very rare in the U.S. today, so the chances of exposure are small. Others are still fairly common. Some are rare in the U.S. but common elsewhere in the world. Don't assume your child is completely safe from these diseases, even the rare ones. For instance, a child in the United States has only a tiny chance of catching diphtheria. But several years ago a boy in California did catch diphtheria and he died. He was the only child in his class who hadn't been vaccinated.

## **ARE SHOTS SAFE?**

Shots are very safe, but they are not perfect. Like any other medicine they can occasionally cause reactions. Usually these are mild, like a sore arm or a slight fever. Serious reactions are rare, but they can happen. Your doctor or nurse can discuss the risks with you before your child gets her shots. The important thing to remember is that getting the diseases is much more dangerous than getting the shots.

## **DO SHOTS ALWAYS WORK?**

Shots work most of the time, but not always. Most childhood immunizations give immunity to 90%-99% of the children who get them. But occasionally a child will not respond to certain vaccines. This is another reason why it's important for all children to be vaccinated. A child who has not responded to vaccination has to depend on the immunity of others around her for protection. She could be infected by a child who hasn't been vaccinated, but not by one who is immune.

## **WHAT IF MY CHILD DIDN'T START HER SHOTS ON TIME, OR GETS BEHIND SCHEDULE? WILL THEY STILL WORK?**

Yes. If your child has gotten behind in the schedule, it is not too late. Most of these shots can be given at any age, and a child who has gotten behind does not have to start over. The shots already given will still count, and the child will still develop immunity. Just contact your doctor or health department clinic.

## **ISN'T GETTING ALL THESE SHOTS EXPENSIVE?**

It doesn't have to be. Vaccines are free if you take your child to a public health clinic (for instance, a state or local clinic), although you might have to pay a small fee for the nurse to give the shots. If you go to a private doctor, vaccines might be covered by your health insurance. Or a program called "Vaccines for Children" (VFC) might pay for your shots if you are enrolled in Medicaid, don't have health insurance, or are an American Indian or Alaska Native.

***But if you still have questions, please discuss them with your doctor or with the staff at the clinic.***